JGI JOINT GENOME INSTITUTE
UNITED STATES DEPARTMENT OF ENERGY

U.S. DEPARTMENT OF ENERGY
Office of Science

Advance Your Science with the Joint Genome Institute

The U.S. Department of Energy Joint Genome Institute (JGI) is a large-scale genomic science user facility dedicated to aiding researchers in sequence-enabled science and the analysis of genomes of microbes, microbial communities, plants, fungi, and other targets relevant to DOE missions in energy, climate, and environment. The JGI provides users around the world with access, at no cost, to high-throughput genomic capabilities and data analysis. These include genome, metagenome, and single-cell sequencing; resequencing; DNA synthesis and transposon mutagenesis; as well as transcriptome, metatranscriptome, and methylome analysis.

2014 USER OPPORTUNITIES AND EVENTS

Access to Sequencing, Synthesis, and Analysis

Community Science Program (CSP)
Peer-reviewed selection process for massive-throughput sequencing and DNA synthesis for projects of relevance to alternative-energy production, global carbon cycling, and biogeochemistry.
http://1.usa.gov/JGI-programs

Targeted Calls for Proposals
Microbes/Metagenomes: These include genome, metagenome, and single-cell sequencing or resequencing; transcriptome, metatranscriptome, and methylome analysis; DNA synthesis; and transposon mutagenesis and screening. Up to 12 prokaryotic epigenomes and/or up to 6 metagenome samples (50 Gb/sample) are accepted continuously and reviewed biannually. Priority is given to pilot projects for larger-scale CSP proposals.

DNA Synthesis: Proposals are encouraged that address the refactoring, screening, and functional characterization of multigene pathways in bacteria, archaea, or eukaryotes involved in DOE mission-relevant processes. Projects that involve functional prospecting of diverse species/metagenomes, require the construction of large DNA molecules (>10 kb), and exploit coupling to high-throughput screening technologies are especially encouraged.

1000 Fungal Genomes: Nominate fungi of DOE mission relevance and phylogenetic diversity: http://1.usa.gov/1000-Fungi

Plant Gene Atlas: Generate expression data for standard tissues or limited experimental conditions in JGI Plant Flagship Genomes or Flagship comparators: http://1.usa.gov/JGI-Plants

Visiting Scientist Program (VSP)
Visiting program for faculty-level scientists to leverage JGI experimental, computational, and support resources.

Distinguished Postdoctoral Fellow in Genomics
Recent Ph.D. or equivalent graduates with background in experimental and/or computational genome-relevant sciences are eligible to apply.

Emerging Technologies Opportunity Program (ETOP)

The objectives of the ETOP are to identify and fund new and existing JGI partners to develop promising projects that will provide users access to state-of-the-art large-scale genomic technologies.
http://1.usa.gov/JGI-ETOP

9th Annual Genomics of Energy and Environment Meeting

March 18–20, 2014, Walnut Creek, CA

Presentations, genome informatics tutorials, workshops, and poster sessions on a diversity of topics connected to energy and environmental science: Microbial ecology and bioprospecting, genomic analysis of biofuel crops, single-cell genomics, systems biology, and synthetic biology.
http://1.usa.gov/JGI-Meeting

Microbial Genomics and Metagenomics (MGM) Workshops

Five-day workshops combining intensive seminars and hands-on tutorials for the Integrated Microbial Genomes (IMG) system suite of tools for comparative analysis and annotation of prokaryotic and eukaryotic genomes.
http://1.usa.gov/MGM-workshops

Data Analysis Resources

The JGI provides a suite of premier computational resources for the functional characterization, analysis, and improvement of a vast number of publicly available genomes and metagenomes. JGI Genome Portal sequence downloads, access, annotations for all JGI genomes.

Integrated Microbial Genomes (IMG)
Comparative analysis and annotation of genomes from all domains of life. IMG with Microbiome Samples (IMG/M) for studies of microbial communities. IMG Education Site (IMG/EDU) for training resources. IMG Expert Review (IMG/ER) for functional annotation and curation.

Phytozome
Browse and access plant genomes and proteomes. Study the evolutionary history of plant genes and gene families.

MycoCosm
Data access, visualization, and analysis tools for comparative genomics of fungi.
http://1.usa.gov/JGI-Data

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